

A scenic photograph of an Arctic landscape. In the foreground, three reindeer with large, dark antlers are walking across a field of dry, brownish grass. The background features a range of blue mountains under a clear sky. The text is overlaid on the image in white and black.

Arctic Boreal Vulnerability Experiment (ABoVE) 2024 ABoVE L-band SAR Airborne Flights

**18 August 2024 (DOY 231)
Mackenzie Valley – Kaktovik AK – Fort Yukon #1**

**Charles Miller, Deputy Science Lead
Jet Propulsion Laboratory, California Institute of Technology
Peter Griffith, Elizabeth Hoy
Carbon Cycle & Ecosystems Office
and the ABoVE Science Team**

**For Ryan Pavlick, Kathy Hibbard, Laura Lorenzoni, Bruce Tagg, Jack Kaye
NASA HQ
2024**



18 August 2024/DOY 231

Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Daily Summary:

- **C-20A (N802NA) L-band SAR ABoVE CAMPAIGN (CANADA / ALASKA)**
- REPORT DATE: 18 August 2024
- Current Status of Aircraft: **GREEN**
- Current Status of SAR: **GREEN**
- Current Status of PPA: **GREEN**
- Current Deployment Location: Fairbanks, AK (PAFA)
- Crew: Nelson, Phelps, Little, Reid, Ginn, Miller, Hoy, Meyer, Austerberry, Peacock
- Science Coordinator: N Pinto
- Science Lead: C Miller
- Project Manager: Y Lou



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Daily Summary:

- Fairbanks (PAFA) - Fairbanks (PAFA)
- Collected 9 of 9 data lines
 - Restarts required for Lines 1 & 2
- Flight Plan – [Flight Plan 2126 v01](#) (Mackenzie Valley)
- Reduced fire smoke
- Partly/Mostly/Cloudy skies across the domain but no significant precip in forecast



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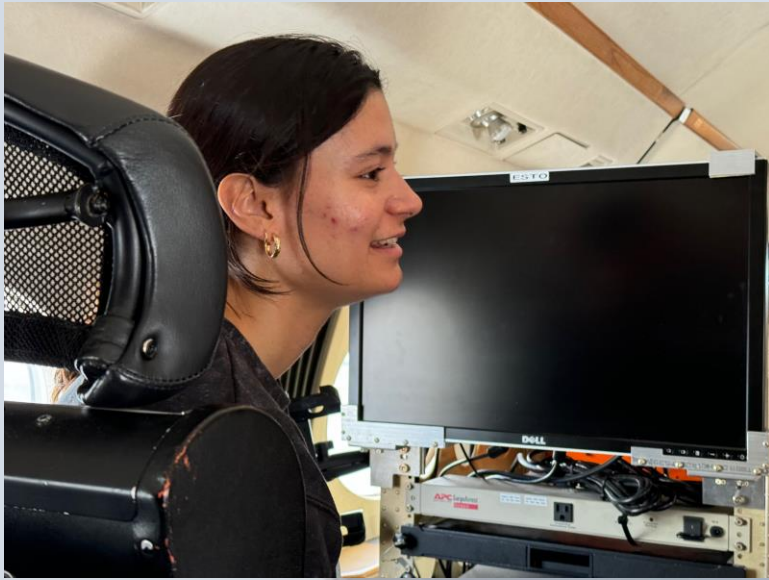
Mackenzie Valley – Kaktovik AK – Fort Yukon #1





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Mackenzie Valley – Kaktovik AK – Fort Yukon #1





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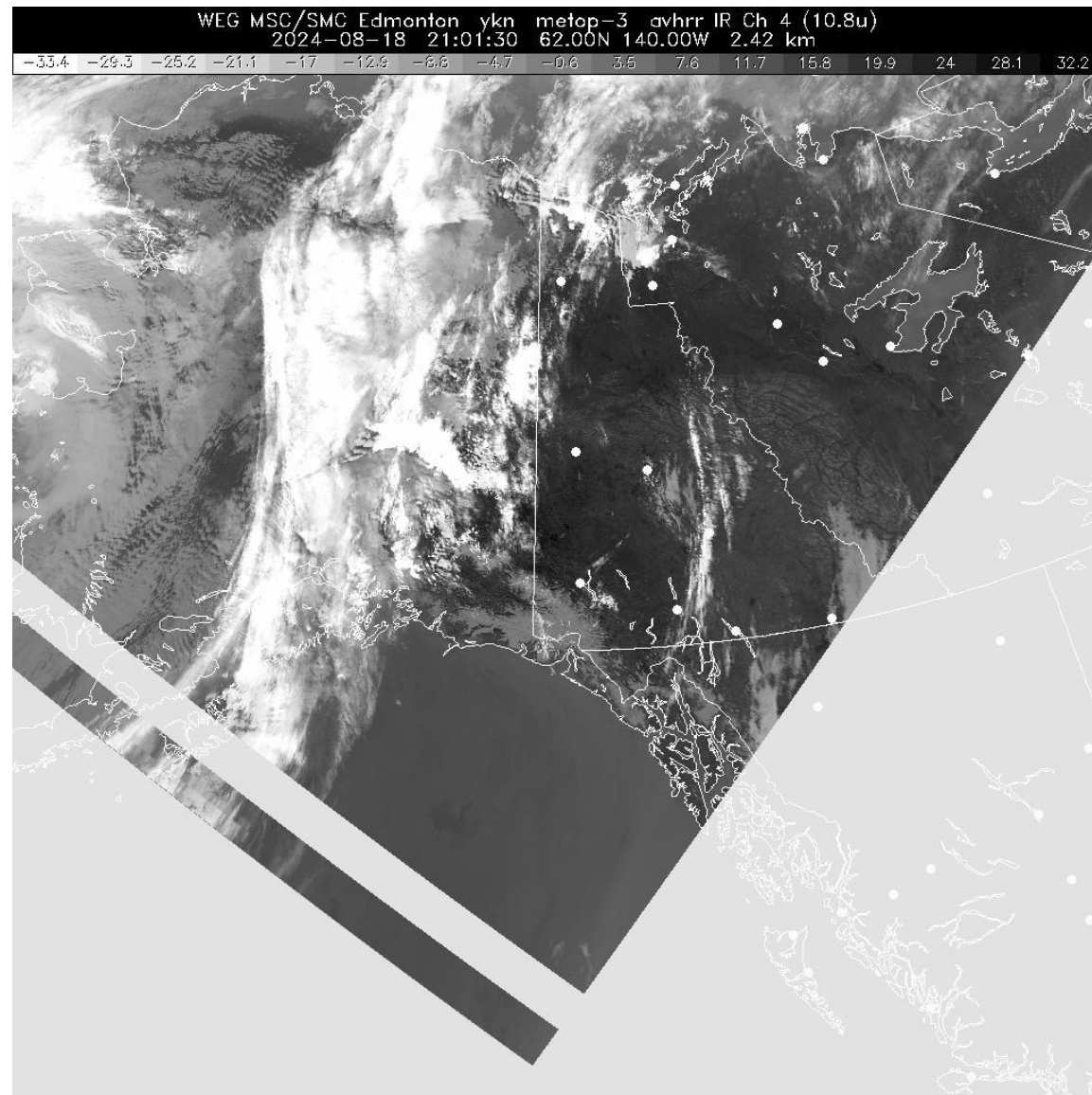
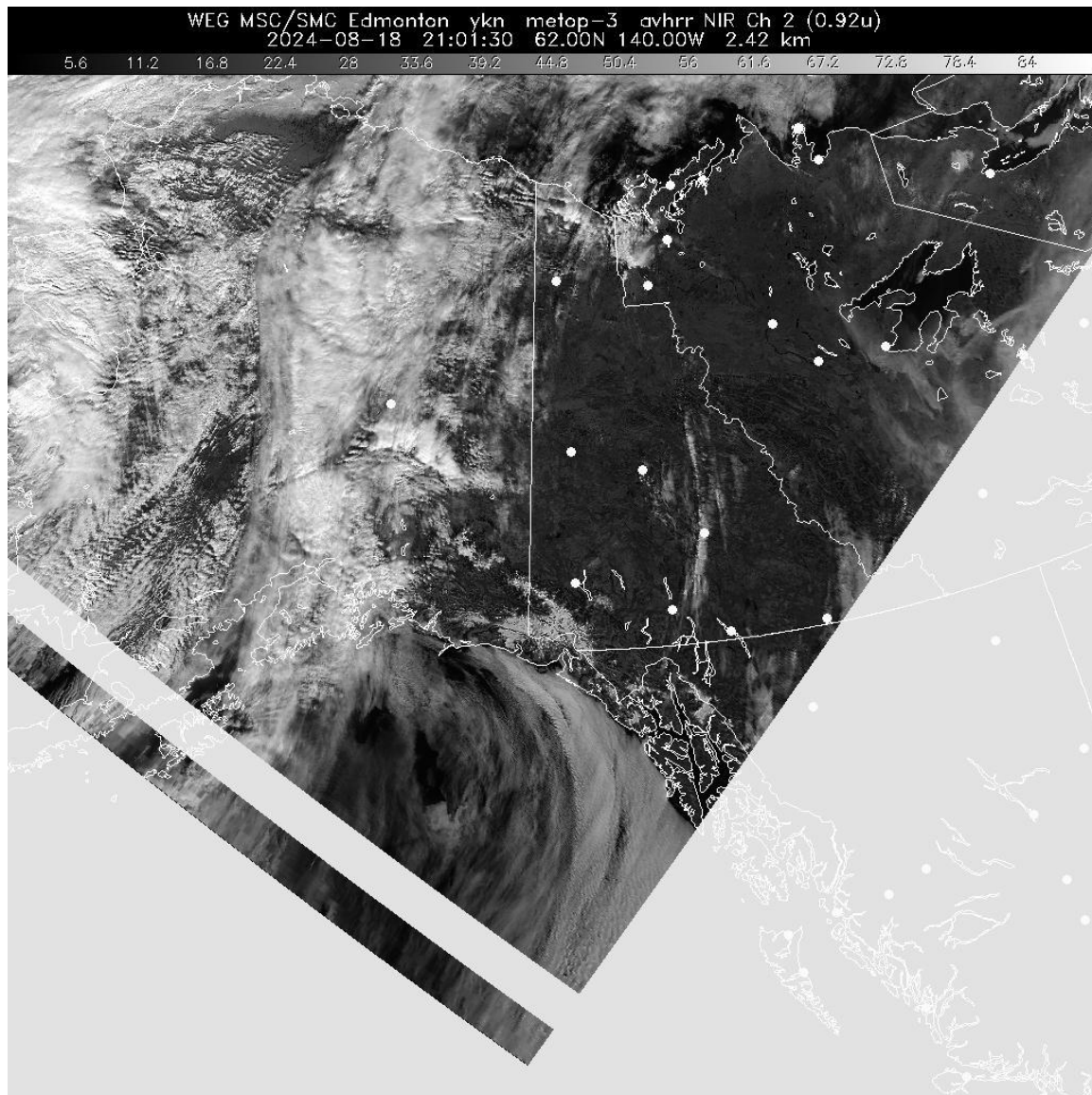
Mackenzie Valley – Kaktovik AK – Fort Yukon #1





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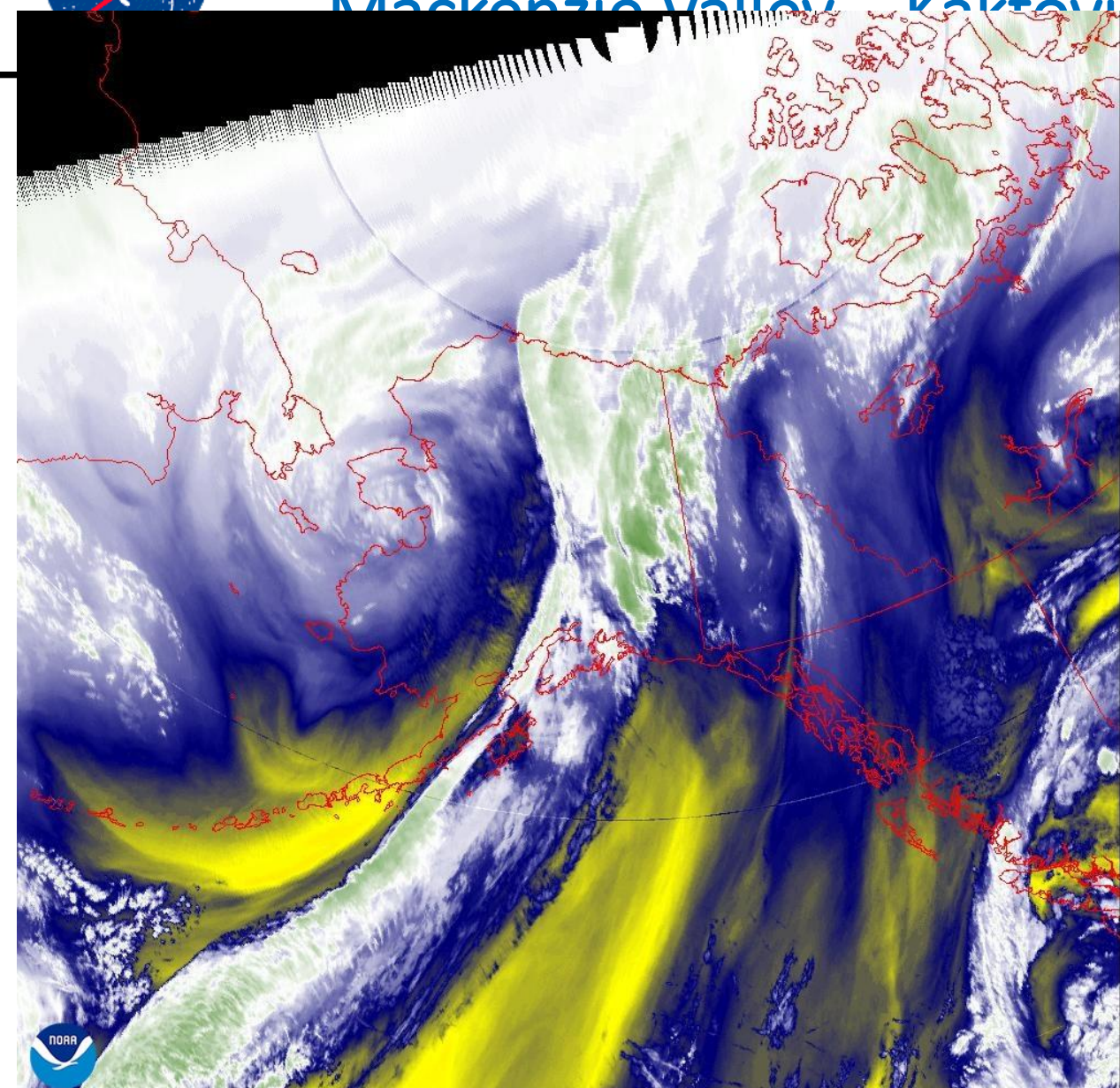
Mackenzie Valley – Kaktovik AK – Fort Yukon #1



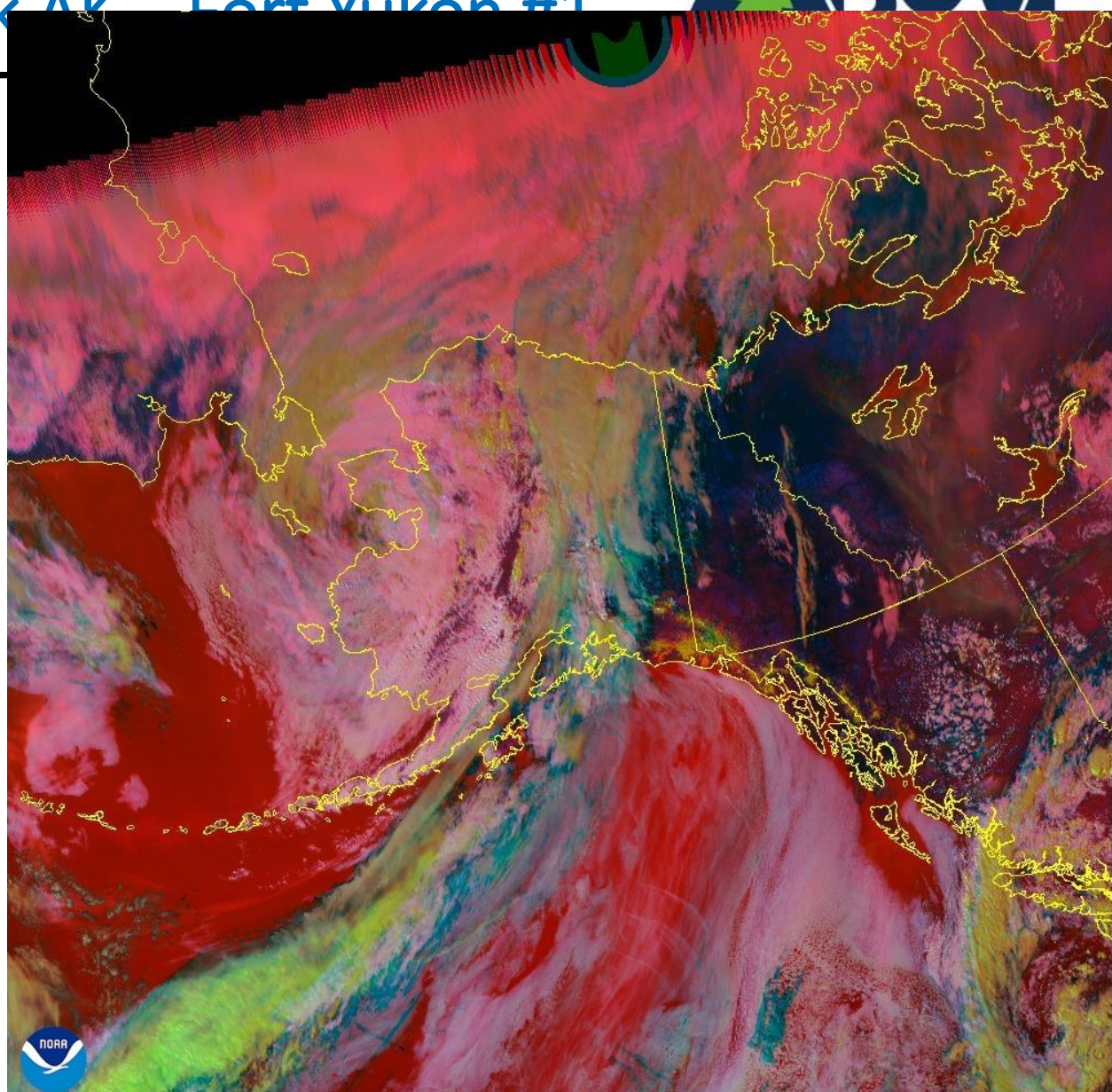


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Mackenzie Valley, Kaktovik AK, Fort Yukon #1



18 Aug 2024 23:50Z - NOAA/NESDIS/STAR - GOES-West - Band 10 - AK

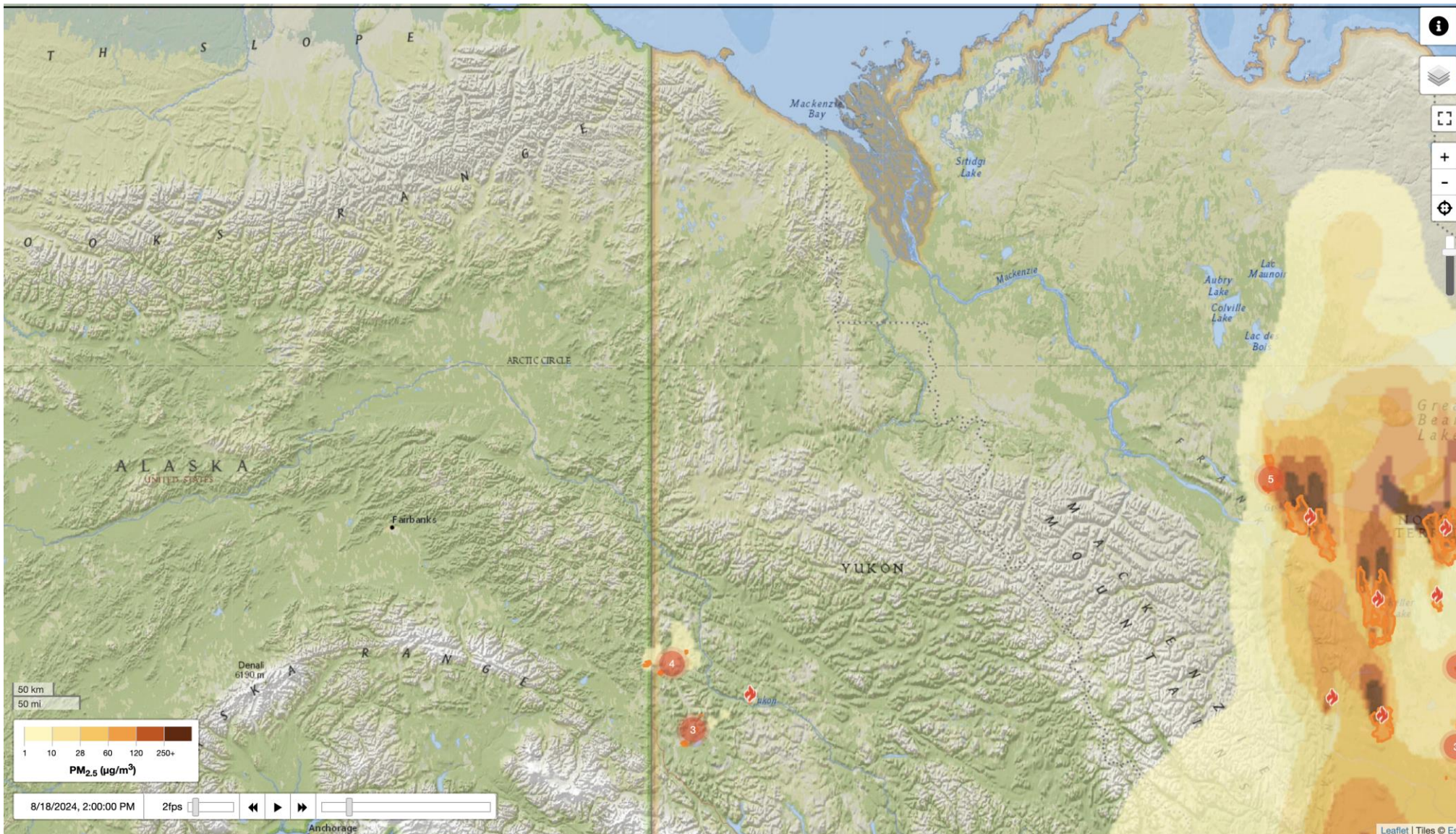


19 Aug 2024 00:10Z - NOAA/NESDIS/STAR - GOES-West - DayNightCloudMicroCombo Composite - AK



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1





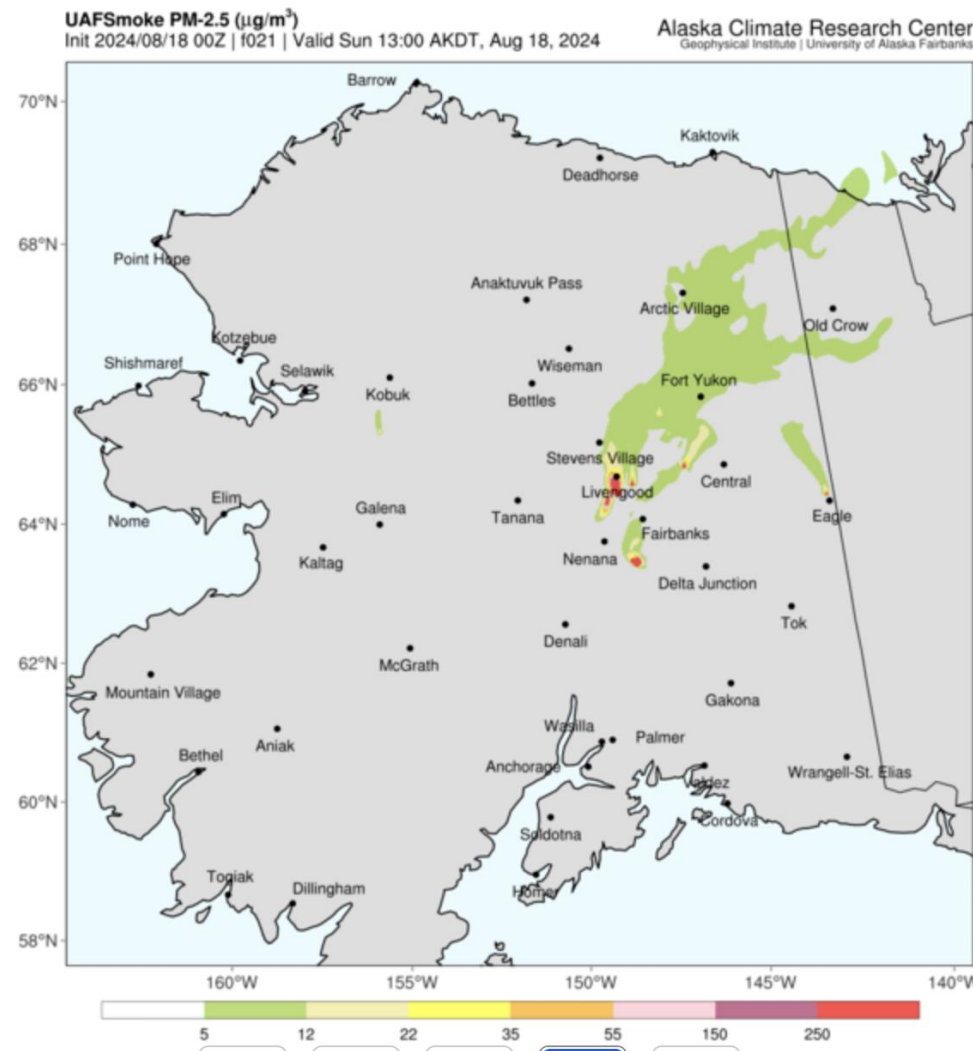
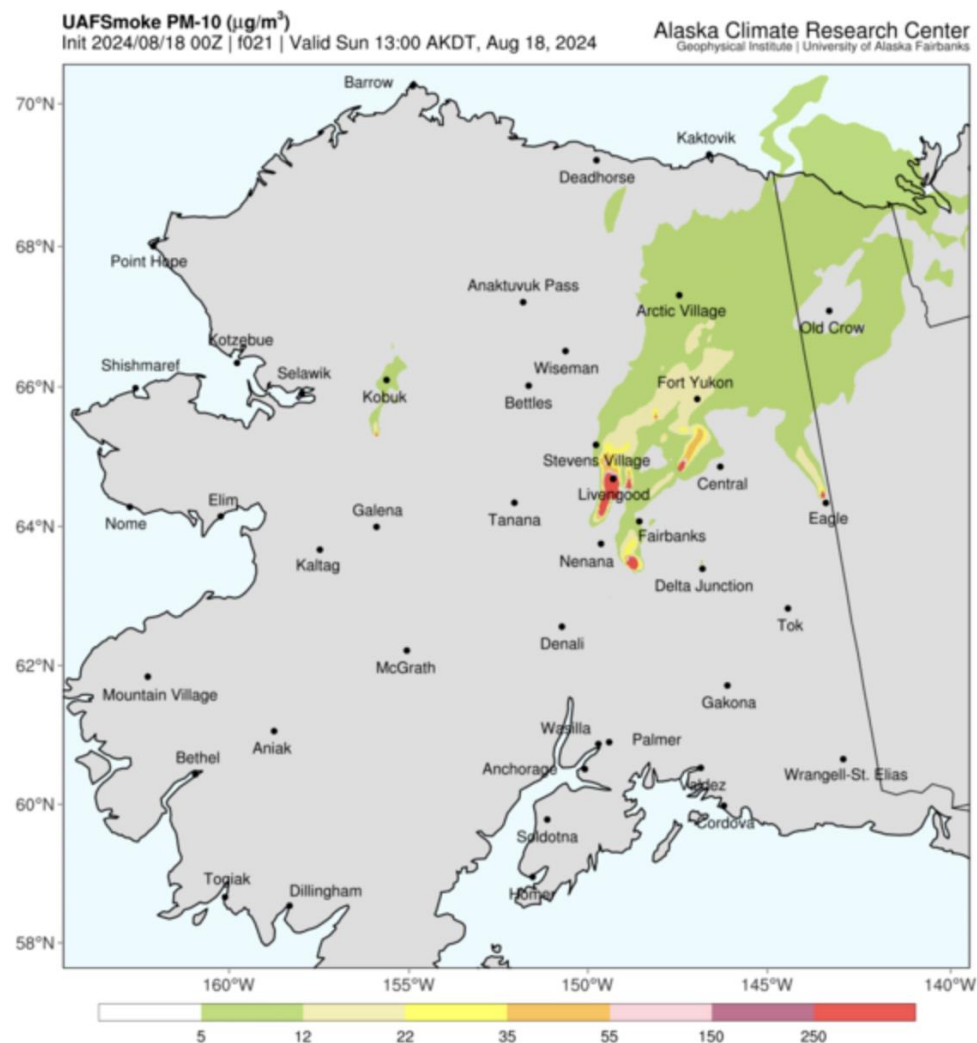
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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



PM-10: Particulate Matter (smoke particles 10 micrometers or less in diameter) near surface level.
(Loading slowly? [Click here](#) for a simpler animation.)

PM-2.5: Particulate Matter (smoke particles 2.5 micrometers or less in diameter) near surface level.
(Loading slowly? [Click here](#) for a simpler animation.)





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Mackenzie Valley – Kaktovik AK – Fort Yukon #1

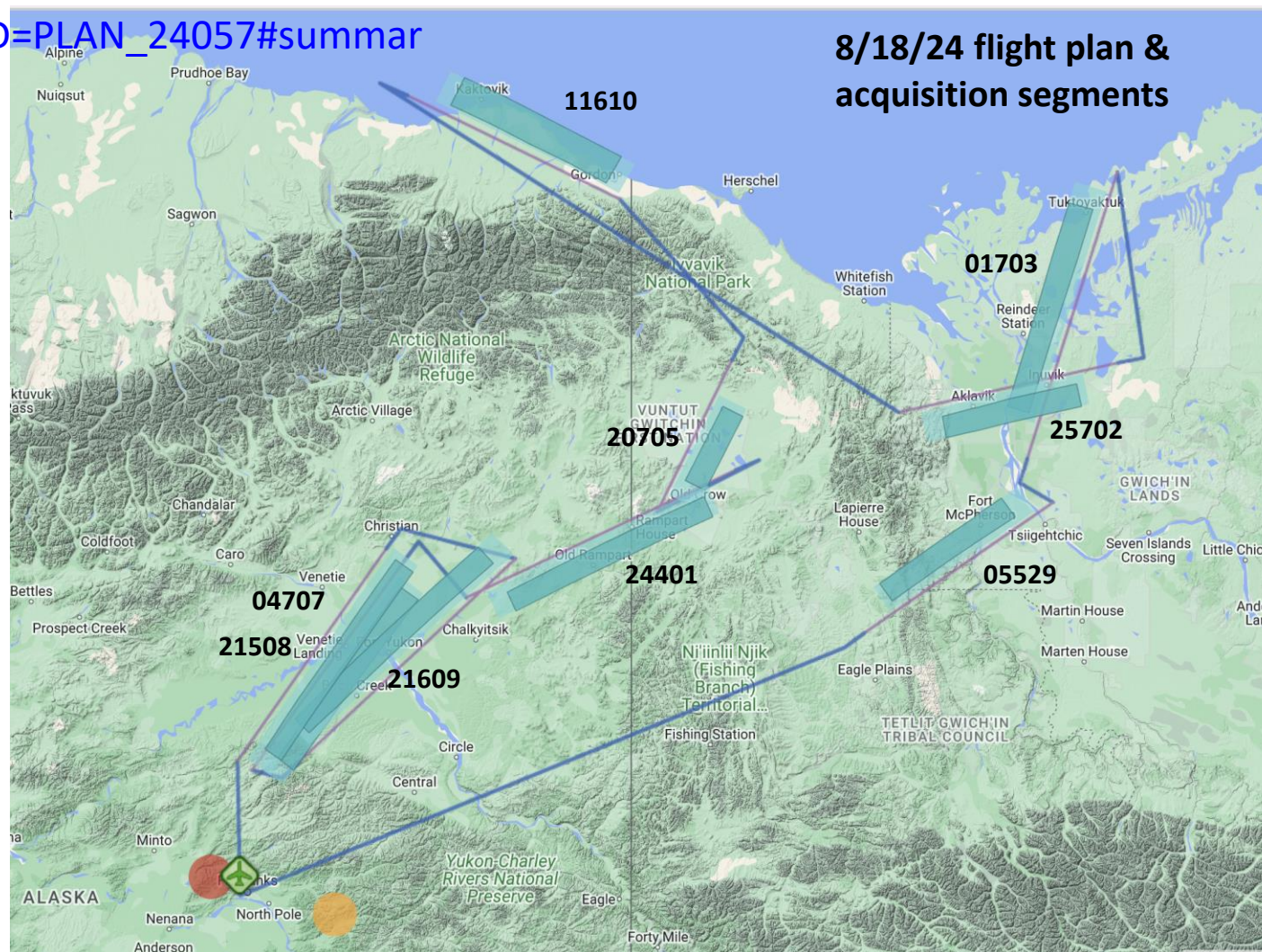


Flight Plan Report: Plan 24057

https://uavsar.jpl.nasa.gov/cgi-bin/report.pl?planID=PLAN_24057#summar

Data Acquisitions:

- Line 1: mcpher_05529
- Line 2: tukhwy_01703
- Line 3: aklavi_25702
- Line 4: kicone_11610
- Line 5: oldcrA_20705
- Line 6: oldcrB_24401
- Line 7: yflatE_21609
- Line 8: ftyuko_04707
- Line 9: yflatW_21508



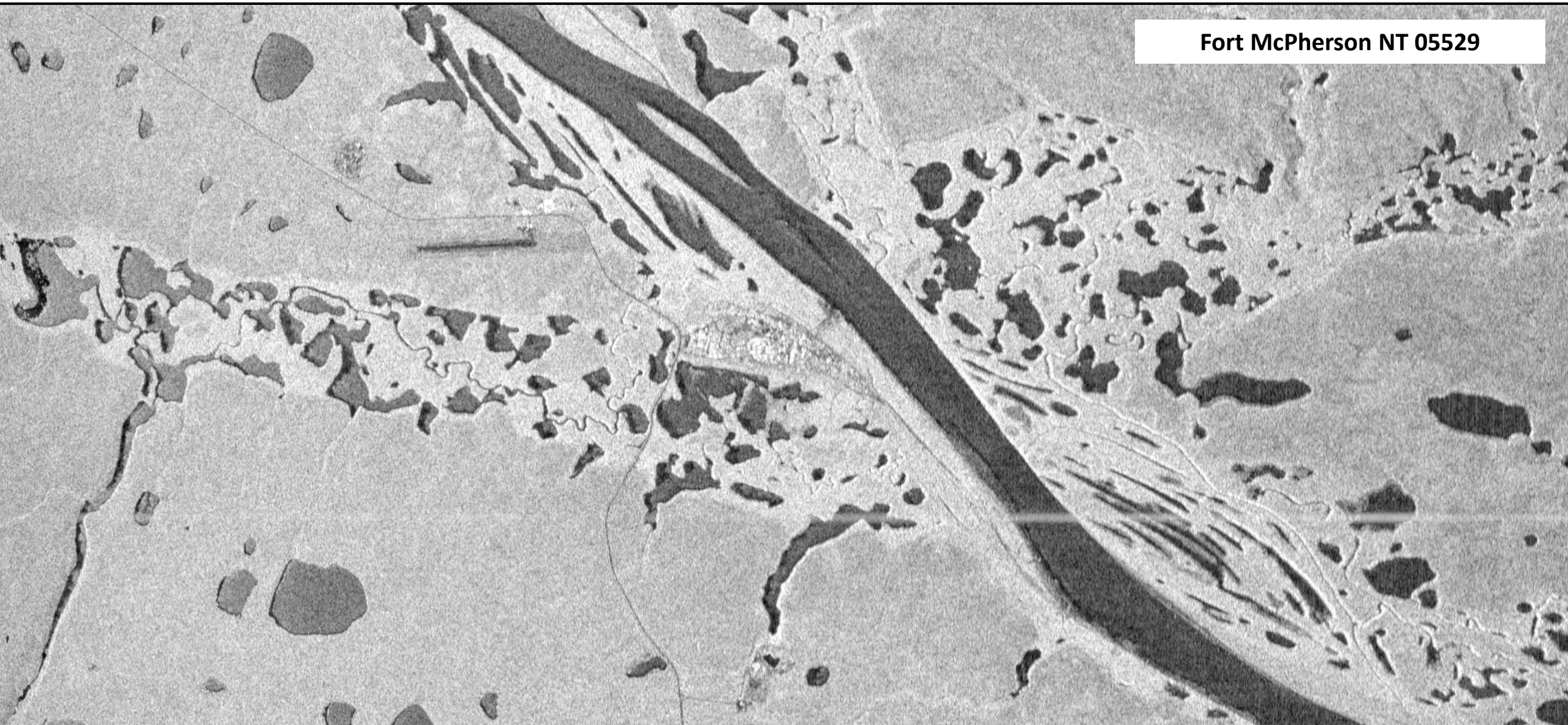


18 August 2024/DOY 231

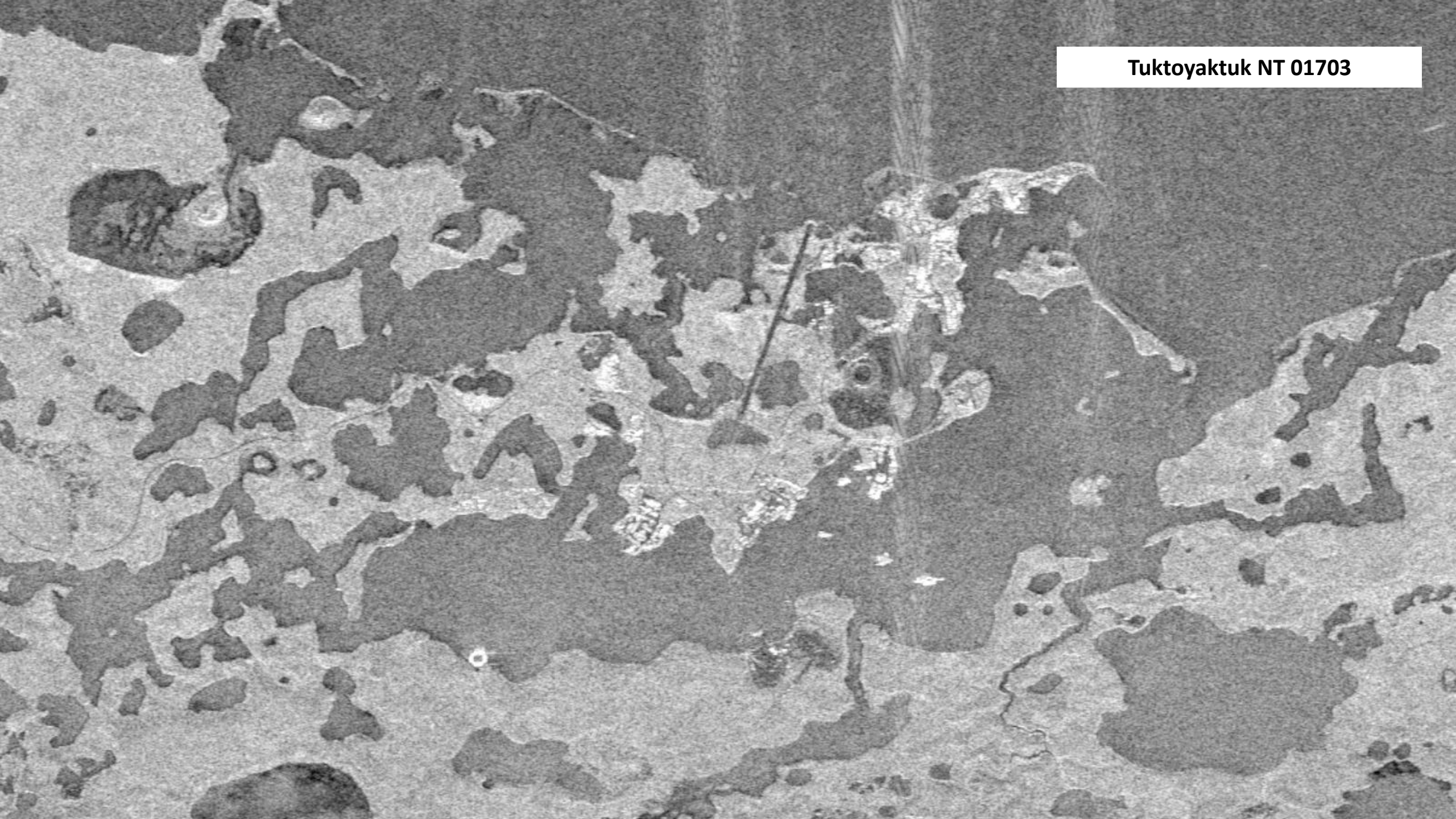
Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Fort McPherson NT 05529



Tuktoyaktuk NT 01703





Old Crow, YT 24401





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Mackenzie Valley – Kaktovik AK – Fort Yukon #1

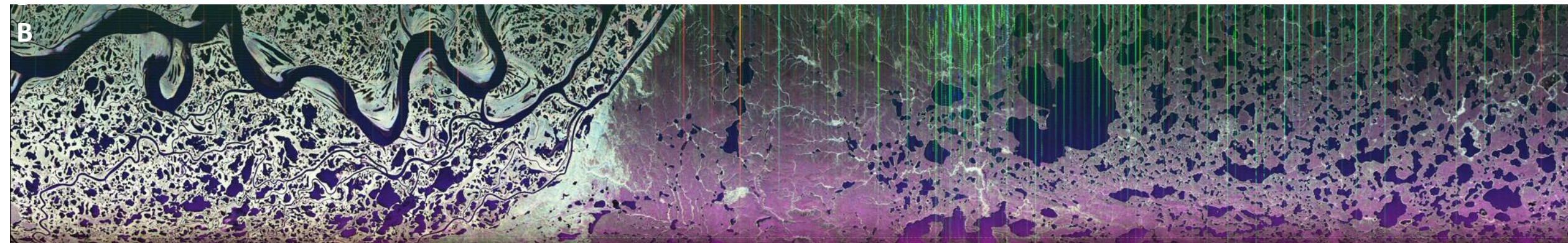
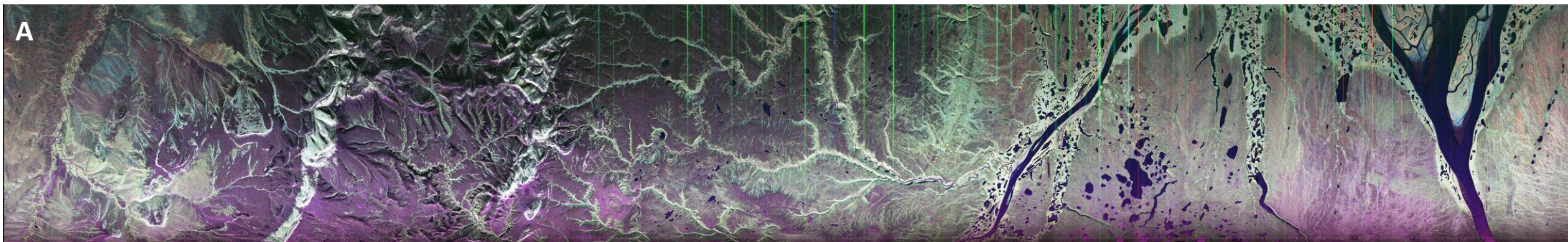


UAVSAR Quick-look products

A. Line 1: mcpher_05529

B. Line 2: tukhwy_01703

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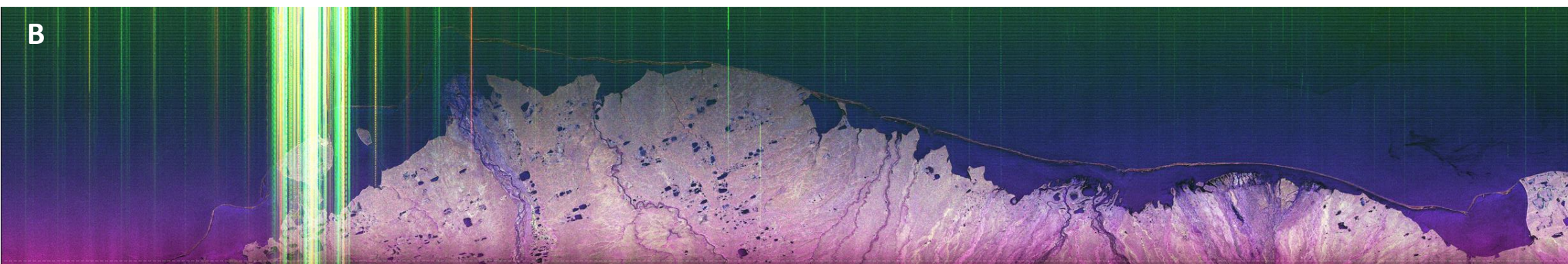
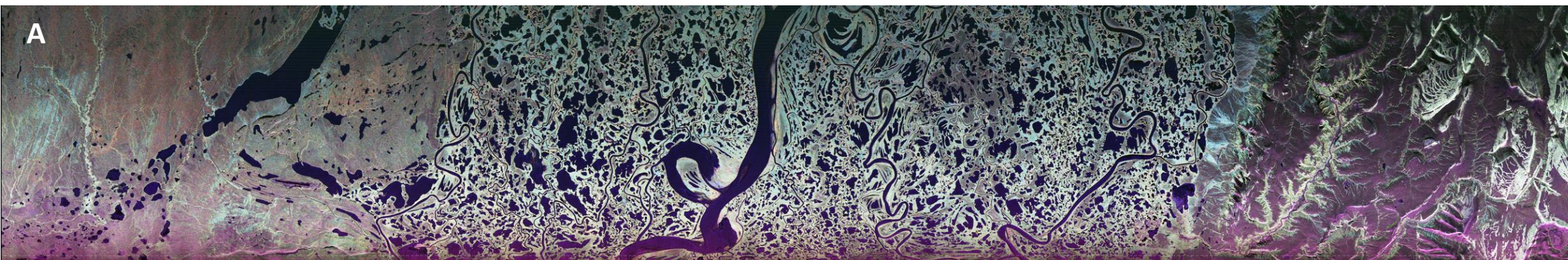


UAVSAR Quick-look products

A. Line 3: **aklavi_25702**

B. Line 4: **kicone_11610**

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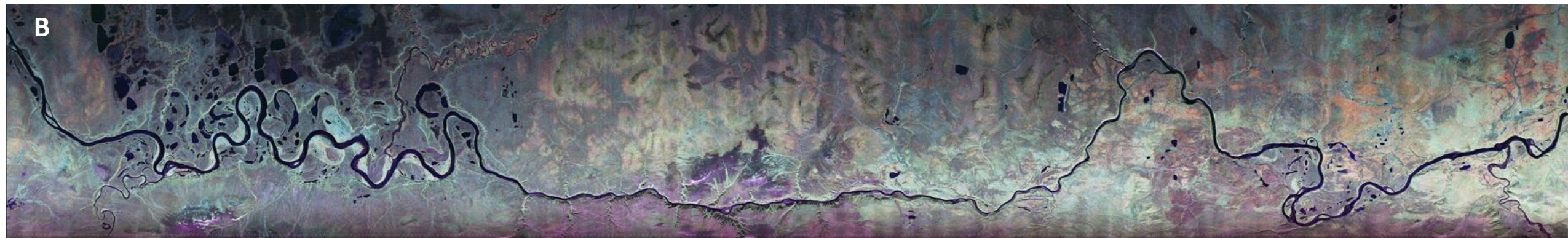
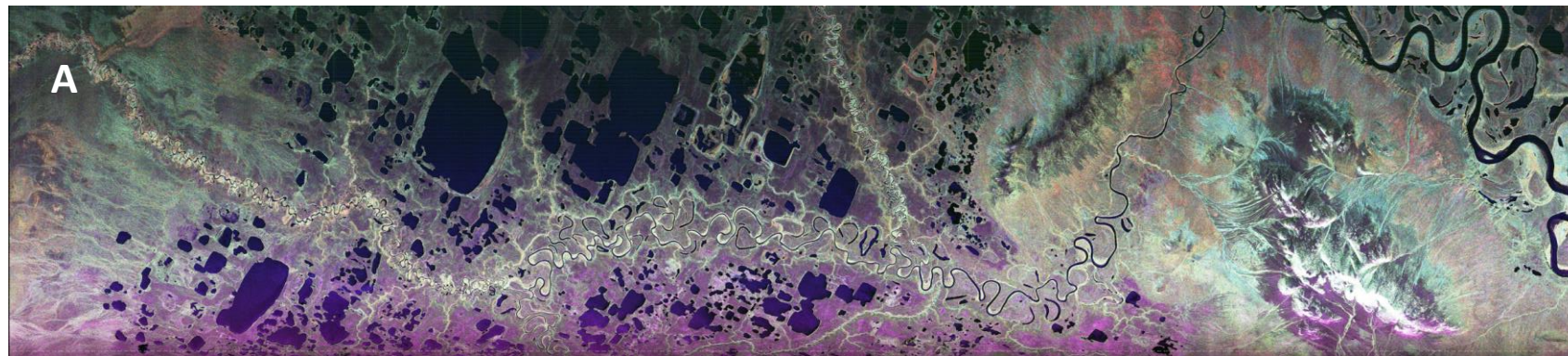


UAVSAR Quick-look products

A. Line 5: oldcrA_20705

B. Line 6: oldcrB_24401

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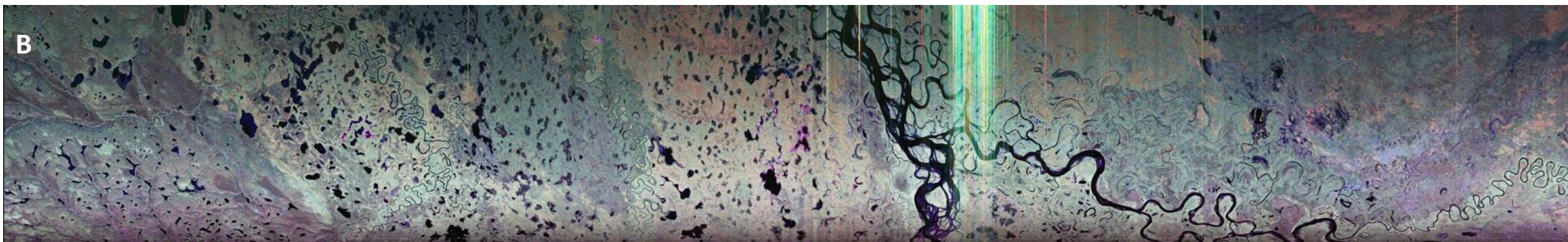
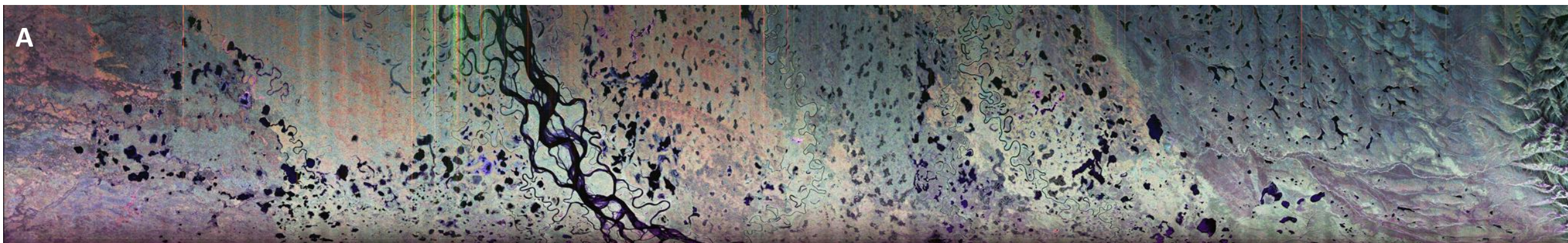


UAVSAR Quick-look products

A. Line 7: yflatE_21609

B. Line 8: ftyuko_04707

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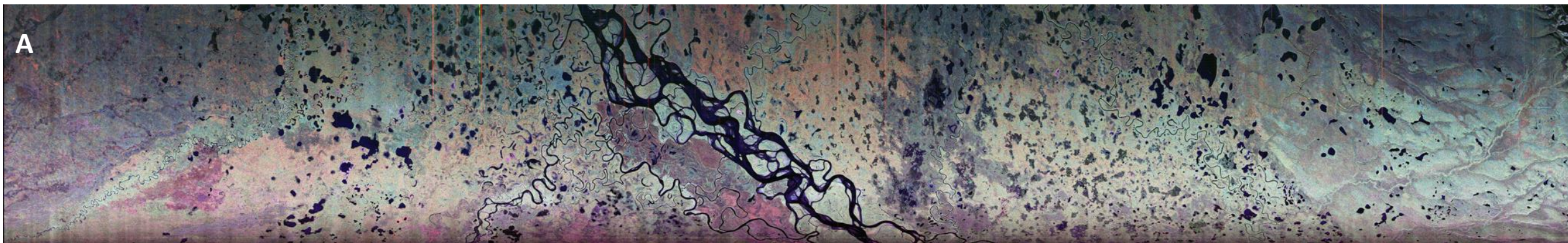
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UAVSAR Quick-look products
A. Line 9: yflatW_21508

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BACKUP



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Freddie Carmichael (CYKD) UTC:00:42 Local:18:42 ▼ ✕

Operated by: NAV CANADA ⓘ

METAR CYKD 181900Z 19011G17KT 15SM SCT120 21/13 A2964 RMK AC3 LAST STFD OBS/NXT 191300Z SLP039 DENSITY ALT 1100FT

SACM65 CYKD 190000 Photo taken at / prise a 2024-08-19 00:30Z

LWIS CYKD 190000Z AUTO 20007KT 26/15 A2953

330° True North 360° True 030° True 060° True

View North of approach area for Runway 13 at the Aklavik, NT Airport

Trees Less than 1/8 SM Trees 1/8 SM Threshold Runway 13 Less than 1/8 SM Trees 1/8 SM

Prevailing visibility cannot be determined by using a single sector video image

[Show Camera Loop](#)

SACM65 CYKD 190000 Photo taken at / prise a 2024-08-19 00:30Z

LWIS CYKD 190000Z AUTO 20007KT 26/15 A2953

North (15°)

SACM65 CYKD 190000 Photo taken at / prise a 2024-08-19 00:30Z

LWIS CYKD 190000Z AUTO 20007KT 26/15 A2953

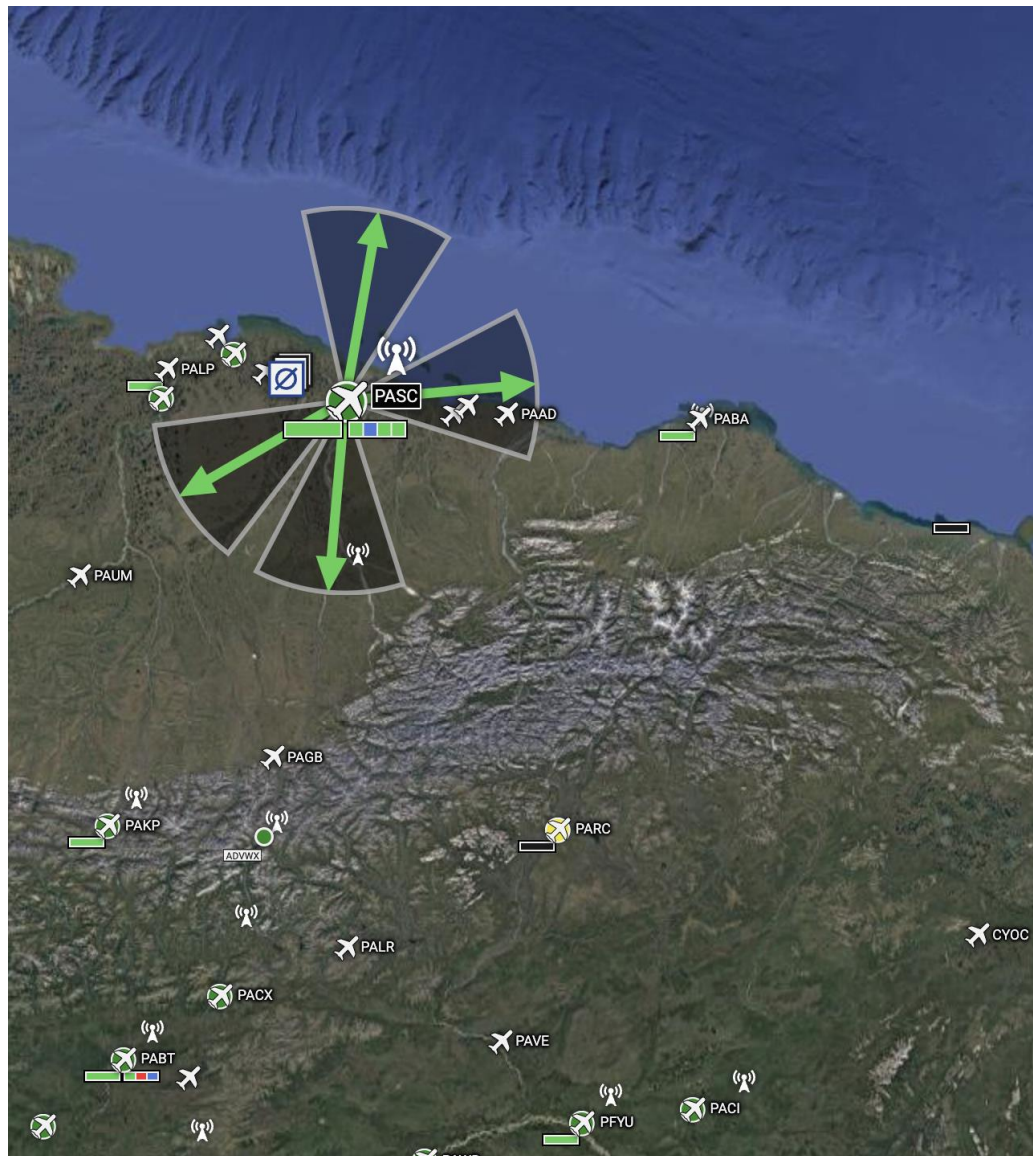
SouthEast (125°)

Weather Data
Weather Trends
PIREPs
RCO
Airport Info
NOTAMs (PilotWeb)



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Deadhorse (PASC)
UTC:00:42 Local:16:42

METAR PASC 182353Z 13007KT 10SM -RA FEW070 BKN110 OVC140 15/M01 A2932 RMK AO2 RAB47 SLP931 PCPN VRY LGT 6//// T01501006 10150 20067 56023 PNO \$

Deadhorse (N) 00:36 08/18/24 (UTC) 16:36 08/18/24 (AKDT)

FAA advisory weather product

CLEARDAY VISUAL REFERENCE

Across Lake
1.5 SM

Site Elevation: 53' MSL

Show Camera Loop

North (10°)

East (85°)

South (185°)

SouthWest (240°)

Weather Data
Weather Trends
PIREPs
RCO
Airport Info
NOTAMs (PilotWeb)



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Chandalar Shelf (5CD) UTC:00:42 Local:16:42

Chandalar Shelf (NE) 00:34 08/18/24 (UTC) 16:34 08/18/24 (AKDT)

CLEARDAY VISUAL REFERENCE

6200' MSL 4.5 SM

6300' MSL 4.0 SM

Site Elevation: 3285' MSL

FAA advisory weather product

Show Camera Loop

NorthEast (35°)	East (90°)	South (165°)	SouthWest (210°)

Weather Data | Weather Trends | PIREPs | RCO | Site Info | NOTAMs (PilotWeb)



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Chalkyitsik (PACI) UTC:00:42 Local:16:42

chalkyitsik (N) 00:41 08/19/24 (UTC) 16:41 08/18/24 (AKDT)

CLEARDAY VISUAL REFERENCE

Site Elevation: 551' MSL
1700' MSL
17.0 SM

FAA advisory weather product

Show Camera Loop

North (19°)	East (75°)	SouthWest (221°)	West (265°)

Weather Data	Weather Trends	PIREPs	RCO	Airport Info	NOTAMs (PilotWeb)
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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Beaver (PAWB) UTC:00:43 Local:16:43

Beaver (M) 00:04 08/18/24 (UTC) 16:04 08/18/24 (AKDT)

FAA advisory weather product

CLEARDAY VISUAL REFERENCE

Site Elevation: 340' MSL

Airport <1.0 SM

Show Camera Loop

North (15°) East (76°) South (191°)

Weather Data Weather Trends PIREPs RCO Airport Info NOTAMs (PilotWeb)



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Mackenzie Valley – Kaktovik AK – Fort Yukon #1



Central (PACE) UTC:00:43 Local:16:43

Central (N) 00:36 08/19/24 (UTC) 16:36 08/18/24 (AKDT)

CLEARDAY VISUAL REFERENCE

3000' MSL 7.0 SM
3400' MSL 7.5 SM

Site Elevation: 962' MSL

FAA advisory weather product

Show Camera Loop

North (350°) NorthEast (64°) SouthEast (140°)

Weather Data Weather Trends PIREPs RCO Airport Info NOTAMs (PilotWeb)